ORDINANCE NO. 11-2991

AN ORDINANCE AMENDING THE CODE OF ORDINANCES OF THE CITY OF BEDFORD, TEXAS, BY REPEALING ARTICLE III "INTERNATIONAL BUILDING CODE", ARTICLE IIIA "INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS", ARTICLE IIIB "INTERNATIONAL ENERGY CONSERVATION CODE", ARTICLE IV "PLUMBING; IRRIGATION", ARTICLE V "GAS CODE", ARTICLE VI "MECHANICAL SYSTEMS" OF CHAPTER 22 "BUILDINGS AND BUILDING REGULATIONS", AND REPLACING IT WITH ARTICLE III INTERNATIONAL CODES/AMENDMENTS INCLUSIVE OF THE INTERNATIONAL BUILDING CODE 2009 EDITION, INTERNATIONAL RESIDENTIAL CODE 2009 EDITION, INTERNATIONAL MECHANICAL CODE 2009 EDITION, INTERNATIONAL PLUMBING CODE 2009 EDITION, INTERNATIONAL FUEL GAS CODE 2009 EDITION, INTERNATIONAL ENERGY CONSERVATION CODE 2009 EDITION, INTERNATIONAL PROPERTY MAINTENANCE CODE 2009 EDITION; MAKING REGIONAL AMENDMENTS TO EACH OF THE INTERNATIONAL CODES ADOPTED HEREBY; PROVIDING A PENALTY OF UP TO \$2,000 PER DAY FOR VIOLATIONS; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A SAVINGS CLAUSE AND AN EFFECTIVE DATE.

WHEREAS, the Texas Legislature allows all Texas municipalities adopt the most current editions of the International Building Code, International Residential Code, International Mechanical Code, International Plumbing Code, International Fuel Gas Code, International Energy Conservation Code and International Property Maintenance Code; and,

WHEREAS, that legislation also allows municipalities to make regional amendments to said International Codes; and,

WHEREAS, the City Council of the City of Bedford, Texas, desires to adopt the most current editions of the International Codes as allowed by the Texas Legislature, and further desires to adopt and enact certain local amendments to said International Codes; and,

WHEREAS, the Bedford City Council finds and determines that the codes and amendments adopted hereby will promote the health, safety and general welfare of the citizens of the City of Bedford, Texas.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. That Chapter 22 "Buildings and Building Regulations" of the Bedford Code of Ordinances is hereby amended by repealing Article III "International Building Code", Article IIIa "International Residential Code for One and Two Family Dwellings", Article IIIb "International Energy Conservation Code", Article IV "Plumbing;Irrigation", Article V "Gas Code", and Article VI "Mechanical Systems" and replacing it with Article III "International Codes/Amendments which shall hereafter be and read as follows:

ARTICLE III INTERNATIONAL CODES / AMENDMENTS

Sec. 22-51 International Building Code Adopted.

The International Building Code, 2009 Edition and appendix chapters G and J as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-52 Amendments to the International Building Code.

Section 101.1; Insert: City of Bedford

- 2. ***Section 101.4; change to read as follows:
 - **101.4 Referenced codes.** The other codes listed in Sections 101.4.1 through 101.4.6 and referenced elsewhere in this code, <u>when specifically adopted</u>, shall be considered part of the requirements of this code to the prescribed extent of each such reference. <u>Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the Electrical Code shall mean the Electrical Code as adopted.</u>
- 3. *** Section 103.1; Delete
- 4. Section 105.2 (1); change to read as follows:
 - 105.2 (1): Playhouses and similar uses, provided the floor area does not exceed 50 square feet.
- 5. Section 105.2 (2.); Delete
- 6. ***Section 109.7; add Section 109.7 to read as follows:

109.7 Re-inspection Fee. A fee as established by City Council resolution may be charged when:

- The inspection called for is not ready when the inspector arrives;
- No building address or permit card is clearly posted;
- City approved plans are not on the job site available to the inspector;
- The building is locked or work otherwise not available for inspection when called;
- The job site is red-tagged twice for the same item;
- The original red tag has been removed from the job site.
- Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

7. ***Sections 109.8 and 109.9; add Section 109.8, 109.8.1, 109.8.2 and 109.9 to read as follows:

109.8 Investigation Fee. Work without a permit.

109.8.1 Investigation. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

109.8.2 Fee. An investigation fee, in addition to the permit fee, shall be equal to the amount of the permit fee required by this code or the City fee schedule as applicable. The payment of such investigation fee shall not exempt the applicant from compliance with all other provisions of either this code or the technical codes nor from penalty prescribed by law.

109.9 Unauthorized cover up fee.

109.9.1 Any work concealed without first obtaining the required inspection in violation of section 110 shall be assessed a fee as established by the City fee schedule.

- 8. **Section 110.3.5; delete.
- 9. ***Section 202; amend definition to read as follows:

HIGH-RISE BUILDING. A building with an occupied floor located more than 75 55 feet (22 860 mm) (16 764 mm) above the lowest level of fire department vehicle access.

10. ***Section 202; amend definition of Ambulatory Health Care Facility and Fire Watch as follows:

[B] Ambulatory Health Care Facility {add to existing definition – matches Fire Advisory Board definition}

This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers
- 11. **Section 304.1; add the following to the list of occupancies:

Fire stations

Police stations with detention facilities for 5 or less

- 12. ***Section 307.1; add the following to Exception 4:
 - 4. Cleaning establishments... {language unchanged}. <u>See also IFC chapter 12, Dry Cleaning</u> Plant provisions.
- 13. **Section 310.1; amend second paragraph under R-3 as follows:

Adult care and child care facilities with 5 or fewer unrelated persons that are within a single-family home are permitted to comply with the *International Residential Code*.

- 14. ***Section 403.1, exception #3; change to read as follows:
 - 3. Open air portions of buildings Buildings with a Group A-5 occupancy in accordance with Section 303.1.
- 15. **Section 403.3, exception #2; delete the exception.
- 16. **Section 404.1.1; change definition of "Atrium" as follows:

ATRIUM. An opening connecting two three or more stories . . . {Balance remains unchanged}

- 17. ***Section 404.5; delete exception.
- 18. **Section 406.1.2; add item #3 to read as follows:
 - 3. A separation is not required between a Group R-2 and U carport provided that the carport is entirely open on all sides and that the distance between the two is at least 10 feet (3048 mm)
- 19. ***Section 406.6.1; add a second paragraph to read as follows:

This occupancy shall also include garages involved in minor repair, modification and servicing of motor vehicles for items such as lube changes, inspections, windshield repair or replacement, shocks, minor part replacement and other such minor repairs.

- 20. Section 501.2; Change 501.2 to read as follows:
 - **501.2 Address Identification.** Approved numerals of minimum 8 inch height and of a color contrasting with the background designating the address shall be placed on all new and existing buildings or structures in a position as to be plainly visible and legible from the street or road fronting the property and from all rear alleyways / access. Where buildings do not immediately front a street, approved 8 inch height building numerals or addresses and 3 inch height suite / apartment numerals of a color contrasting with the background of the building shall be placed on all new and existing buildings or structures. Numerals or addresses shall be posted on a minimum 20 inch by 30 inch background on border. Address numbers shall be Arabic numerals or alphabet letters. The minimum stroke width shall be 0.5 inch. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure.

21. **Section 506.2.2; add a sentence to read as follows:

In order to be considered as accessible, if not in direct contact with a street or fire lane, a minimum 10-foot wide pathway meeting fire department access from the street or approved fire lane shall be provided.)

- 22. ***Section 508.2.5, add a sentence at the end of paragraph:
 - **508.2.5 Separation of Incidental accessory occupancies.** (Sentence remains unchanged.) <u>An incidental accessory occupancy shall be classified in accordance with the occupancy of that portion of the building in which it is located.</u>
- 23. ***Section 708.2, Exception 7; amend subsection 7.3 and delete subsections 7.4 and 7.5 and renumber as follows:
 - 7.1. Does not connect more than two stories.
 - 7.2. Is not part of the required means of egress system except as permitted in Section 1022.1.
 - 7.3. Is not concealed within the building construction of a wall or a floor/ceiling assemble.
 - 7.4. Is not open to a corridor in Group I and R occupancies.
 - 7.5. Is not open to a corridor on nonsprinklered floors in any occupancy.
 - 7.6. 7.4 Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.
 - 7.7. 7.5 Is limited to the same smoke compartment.
- 24. **Section 903.1.1; amend to read as follows:
 - **[F] 903.1.1 Alternative protection.** Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in lieu of <u>addition to</u> automatic sprinkler protection where recognized by the applicable standard and approved by the fire code official.
- 25. ***Section 903.2; add the following to the end of the paragraph:
 - **903.2 Where required.** {Language unchanged} Automatic Sprinklers shall not be installed in elevator machine rooms, elevator machine spaces, and elevator hoistways. Storage shall not be allowed within the elevator machine room. Signage shall be provided at the entry doors to the elevator machine room indicating "ELEVATOR MACHINERY NO STORAGE ALLOWED."
- 26. ***Section 903.2: delete the exception.
- 27. **Add Section 903.2.9.3 to read as follows:
 - **[F] 903.2.9.3 Self-service storage facility.** An automatic sprinkler system shall be installed throughout all self-service storage facilities.

Exception: One-story self-service storage facilities that have no interior corridors, with a one-hour fire barrier separation wall installed between every storage compartment.

- 28. **Section 903.2.11; amend 903.2.11.3 and add 903.2.11.7 and 903.2.11.8 as follows:
 - **[F] 903.2.11.3 Buildings more than 55 feet in height.** An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section 1509 of the *International Building Code*, having an occupant load of 30 or more that is located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access.

Exception:

- 1. Airport control towers.
- 2. Open parking structures in compliance with Section 406.3.

- 3. Occupancies in Group F-2.
- **[F] 903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 23 to determine if those provisions apply.
- **[F] 903.2.11.8 Spray Booths and Rooms.** New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.
- 29. **Section 903.2.11; amend 903.2.11.3 and add 903.2.11.7, 903.2.11.8, and 903.2.11.9 as follows:
 - **903.2.11.3 Buildings more than 55** <u>35</u> feet in height. An automatic sprinkler system shall be installed throughout buildings with a floor level, other than penthouses in compliance with Section <u>1509 of the *International Building Code*</u>, having an occupant load of 30 or more that is located 55 35 feet (16 764 10 668mm) or more above the lowest level of fire department vehicle access.

Exception:

- 1. Airport control towers.
- 2. Open parking structures in compliance with Section 406.3.
- 3. Occupancies in Group F-2.
- **903.2.11.7 High-Piled Combustible Storage.** For any building with a clear height exceeding 12 feet (4572 mm), see Chapter 23 to determine if those provisions apply.
- <u>903.2.11.8 Spray Booths and Rooms.</u> New and existing spray booths and spraying rooms shall be protected by an approved automatic fire-extinguishing system.
- <u>903.2.11.9 Buildings Over 6,000 sq.ft.</u> An automatic sprinkler system shall be installed throughout all buildings with a building area over 6,000 sq.ft. For the purpose of this provision, fire walls shall not define separate buildings.

Exceptions:

Open parking garages in compliance with Section 406.3 of the *International Building Code*.

- 30. ***Section 903.3.1.1.1; change to read as follows:
 - **903.3.1.1.1 Exempt locations.** When approved by the *fire code official*, automatic Automatic sprinklers shall not be required in the following rooms or areas where such . . . *{language unchanged} . . .* because it is damp, of fire-resistance-rated construction or contains electrical equipment.
 - 1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
 - 2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
 - 3. Generator and transformer rooms, under the direct control of a public utility, separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.
 - 4. In rooms or areas that are of noncombustible construction with wholly noncombustible contents.
 - 5. Fire service access elevator machine rooms and machinery spaces.
- 31. ***Section 903.3.1.2; add the following:
 - **[F] 903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R, up to and including four stories in height, *automatic sprinkler systems* shall be installed throughout in accordance with NFPA 13R or in accordance with state law.
- 32. ***Section 903.3.1.3; add the following:

- **[F] 903.3.1.3 NFPA 13D sprinkler systems.** Where allowed, *automatic sprinkler systems* installed in one- and two-family *dwellings* and *townhouses* shall be installed throughout in accordance with NFPA 13D or in accordance with state law.
- 33. **Section 903.3.5; add a second paragraph to read as follows:

 Water supply as required for such systems shall be provided in conformance with the supply requirements of the respective standards; however, every fire protection system shall be designed with a 10 psi safety factor.
- 34. **Section 903.4; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45 seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

35. **Section 903.4.2; add second paragraph to read as follows:

The alarm device required on the exterior of the building shall be a weatherproof horn/strobe notification appliance with a minimum 75 candela strobe rating, installed as close as practicable to the fire department connection.

- 36. **Section 905.2; change to read as follows:
 - **905.2 Installation standard.** Standpipe systems shall be installed in accordance with this section and NFPA 14. Manual dry standpipe systems shall be supervised with a minimum of 10 psig and a maximum of 40 psig air pressure with a high/low alarm.
- 37. **Add Section 905.3.8 and exception to read as follows:
 - 905.3.8 Building Area. In buildings exceeding 10,000 square feet in area per story, Class I automatic wet or manual wet standpipes shall be provided where any portion of the building's interior area is more than 200 feet (60960 mm) of travel, vertically and horizontally, from the nearest point of fire department vehicle access.

Exception: Automatic dry and semi-automatic dry standpipes are allowed as provided for in NFPA 14.

- 38. **Section 905.4, item #5; change to read as follows:
 - 5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3-percent slope), each standpipe shall be provided with a <u>two-way</u> hose connection located either . . . *{remainder of language unchanged}.*
- 39. ***905.4; add the following item #7:
 - 7. Class I standpipes shall also be required in all occupancies in which the distance from accessible points for Fire Department ingress to any point in the structure exceeds two hundred fifty feet (250') along the route that a fire hose is laid as measured from the fire lane. When required by this Chapter, standpipe connections shall be placed adjacent to all required exits to the structure and at two hundred feet (200') intervals along major corridors thereafter.
- 40. **Section 905.9; add a second paragraph after the exceptions to read as follows:

Sprinkler and standpipe system water-flow detectors shall be provided for each floor tap to the sprinkler system and shall cause an alarm upon detection of water flow for more than 45

seconds. All control valves in the sprinkler and standpipe systems except for fire department hose connection valves shall be electrically supervised to initiate a supervisory signal at the central station upon tampering.

41. **Add Section 907.1.4 to read as follows:

[F] 907.1.4 Design Standards. All alarm systems new or replacement shall be addressable. Alarm systems serving more than 20 smoke detectors shall be analog addressable.

Exception: Existing systems need not comply unless the total building remodel or expansion initiated after the effective date of this code, as adopted, exceeds 30% of the building. When cumulative building remodel or expansion exceeds 50% of the building must comply within 18 months of permit application.

- 42. **Section 907.2.1; change to read as follows:
 - **907.2.1 Group A.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies having an occupant load of 300 or more persons or more than 100 persons above or below the lowest level of exit discharge. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. Activation of fire alarm notification appliances shall:
 - 1. Cause illumination of the *means of egress* with light of not less than 1 foot-candle (11 lux) at the walking surface level;
 - 2. Stop any conflicting or confusing sounds and visual distractions.
- 43. **Section 907.2.3; change to read as follows:

907.2.3 Group E. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group E <u>educational</u> occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. <u>An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of 100' open space, all buildings, whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems.</u>

Exceptions:

- A manual fire alarm system is not required in Group E <u>educational and day care</u> occupancies with an occupant load of less than 50 <u>when provided with an approved automatic sprinkler system</u>.
 - 1.1. Residential In-Home day care with not more than 12 children may use interconnected single station detectors in all habitable rooms. (For care of more than five children 2 1/2 or less years of age, see Section 907.2.6.)

 {Remainder of exceptions unchanged}
- 44. Section 907.2.11.1; Change to read as follows and add item #4 and #5 to read as follows:

Section 907.2.11.1 Group R-1. Single-or multiple-station smoke alarms and carbon monoxide alarms shall be installed and maintained in all the following locations in Group R-1:

- 4. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units that have a attached garage.
- 5. Where work requiring a permit occurs in existing dwellings that have attached garages carbon monoxide alarms shall be provided.

- 45. Section 907.2.11.2; Change to read as follows and add item #4 and #5 to read as follows:
 - Section 907.2.11.2 Groups R-2, R-3, R-4 and I-1. Single-or multiple-station smoke alarms and carbon monoxide alarms shall be installed and maintained in Groups R2, R-3, R-4 and I-1 regardless of occupant load at all the following locations:
 - 4. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units that have a attached garage.
 - 5. Where work requiring a permit occurs in existing dwellings that have attached garages carbon monoxide alarms shall be provided.
- 46. **Section 907.2.13; change to read as follows:
 - **907.2.13 High-rise buildings.** Buildings with a floor used for human occupancy located more than 75 55 feet (22 860 16 764 mm) above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.
- 47. **Section 907.2.13, exception #3; change to read as follows:
 - 3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1 when used for open air seating; however, this exception does not apply to accessory uses including but not limited to sky boxes, restaurants and similarly enclosed areas.
- 48. ***Section [F] 907.4.2.6; add new Section 907.4.2.6; to read as follows:
 - [F] 907.4.2.6 Type. Manual alarm initiating devices shall be an approved double action type.
- 49. ***Section [F] 907.6.1.1; add Section [F] 907.6.1.1 to read as follows:
 - **[F] 907.6.1.1 Installation.** All fire alarm systems shall be installed in such a manner that a failure of any single initiating device or single open in an initiating circuit conductor will not interfere with the normal operation of other such devices. All initiating circuit conductors shall be Class "A" wired with a minimum of six feet separation between supply and return circuit conductors. IDC Class "A" Style D; SLC Class "A" Style 6; NAC Class "B" Style Y. The IDC from an addressable device used to monitor the status of a suppression system may be wired Class B, Style B provided the distance from the addressable device is within 10-feet of the suppression system device.
- 50. ***Section [F] 907.6.5.2; add new Section 907.6.5.2 to read as follows:
 - **[F] 907.6.5.2 Communication Requirements.** All alarm systems, new or replacement, shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition.
- 51. **Section 910.1; amend exception 2 to read as follows:
 - 2. Where areas of buildings are equipped with early suppression fast-response (ESFR) sprinklers, automatic only manual smoke and heat vents shall not be required within these areas. Automatic smoke and heat vents are prohibited.
- 52. ***Section 910.2; add subsections 910.2.3 with exceptions and 910.2.4 to read as follows:

910.2.3 Group H. Buildings and portions thereof used as a Group H occupancy as follows:

1. In occupancies classified as Group H-2 or H-3, any of which are more than 15,000 square feet (1394 m²) in single floor area.

Exceptions:

- 1. Buildings of noncombustible construction containing only noncombustible materials.
- 2. In areas of buildings in Group H used for storing Class 2, 3 and 4 liquid and solid oxidizers.

 Class 1 and unclassified detonable organic peroxides, Class 3 and 4 unstable (reactive)

 materials, or Class 2 or 3 water-reactive materials as required for a high-hazard commodity classification.

<u>910.2.4 Exit access travel distance increase.</u> Buildings and portions thereof used as a Group F-1 or S-1 occupancy where the maximum exit access travel distance is increased in accordance with Section 1016.3.

53. ***Table 910.3; change the title of the first row of the table to read as follows:

[F] TABLE 910.3
REQUIREMENTS FOR DRAFT CURTAINS AND SMOKE AND HEAT VENTSa

OCCUPANCY GROUP AND COMMODITY CLASSIFICATION	DESIGNATED STORAGE HEIGHT (feet)	MINIMUM DRAFT CURTAIN DEPTH (feet)	MAXIMUM AREA FORMED BY DRAFT CURTAINS (square feet)	VENT- AREATO- FLOOR- AREA RATIOC	MAXIMUM SPACING OF VENT CENTERS (feet)	MAXIMUM DISTANCE TO VENTS FROM WALL OR DRAFT CURTAINSb (feet)
Group F-1 <u>, H</u> and S-1	_	0.2 × Hd but ≥ 4	50,000	1:100	120	60
{Balance of table remains unchanged}						

54. **Section 910.3.2.2; add second paragraph to read as follows:

The automatic operating mechanism of the smoke and heat vents shall operate at a temperature rating at least 100 degrees (F) (approximately 38 degrees Celsius) greater than the temperature rating of the sprinklers installed.

55. ***Section [F] 912.2; add Section [F] 912.2.3 to read as follows:

[F] 912.2.3 Hydrant distance. An approved fire hydrant shall be located within 100 feet of the fire department connection as the fire hose lays.

56. **Section 913.1; Add second paragraph and exception to read as follows:

When located on the ground level at an exterior wall, the fire pump room shall be provided with an exterior fire department access door that is not less than 3 ft. in width and 6 ft. – 8 in. in height, regardless of any interior doors that are provided. A key box shall be provided at this door, as required by Section 506.1.

Exception: When it is necessary to locate the fire pump room on other levels or not at an exterior wall, the corridor leading to the fire pump room access from the exterior of the building shall be provided with equivalent fire resistance as that required for the pump room, or as

approved by the fire code official. Access keys shall be provided in the key box as required by IFC Section 506.1.

57. **Section 1004.1.1; delete exception:

1004.1.1 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.1. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant per unit of area factor assigned to the occupancy as set forth in Table 1004.1.1. Where an intended use is not listed in Table 1004.1.1, the building official shall establish a use based on a listed use that most nearly resembles the intended use.

Exception: Where approved by the building official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

58. ***Section 1007.1; add the following exception #4:

Exceptions:

- 4. Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of Section 1007.
- 59. ***Section 1008.1.9.3; Locks and Latches; add section as follows:

1008.1.9.3, Locks and latches.

- (3.1) Where egress doors are used in pairs and positive latching is required, approved automatic flush bolts shall be permitted to be used, provided that both leaves achieve positive latching regardless of the closing sequence and the door leaf having the automatic flush bolts has no doorknobs or surface mounted hardware.
- 60. ***Section 1008.1.9.4; amend exceptions #3 and #4 as follows:

Exceptions: {Text of Exceptions 1 and 2 unchanged}

- 3. Where a pair of doors serves an *occupant load* of less than 50 persons in a Group B, F, \underline{M} or S occupancy, [remaining text unchanged]
- 4. Where a pair of doors serves a Group B, F, M or S occupancy, [remaining text unchanged]
- 61. ***Section 1008.1.9.8; change to read as follows:
 - **1008.1.9.8.** Electromagnetically locked egress doors. Doors in the *means of egress* that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, <u>I-1, I-2, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, <u>I-1, I-2, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with *listed* hardware that incorporates a built-in switch and meet the requirements below: *[remaining text unchanged]*</u></u>
- 62. ***Section 1015.7; add new section 1015.7 to read as follows:
 - **1015.7** Electrical Rooms. For electrical rooms, special exiting requirements may apply. Reference the electrical code as adopted.
- 63. ***Section 1016.3; add new section 1016.3 to read as follows:
 - **1016.3. Roof Vent Increase**. In buildings that are one story in height, equipped with automatic heat and smoke roof vents complying with Section 910 and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the maximum exit access travel distance shall be 400 feet for occupancies in Group F-1 or S-1.

- 64. ***Section 1018.1; add exception #5 to read as follows:
 - (5.) In Group B office buildings, corridor walls and ceilings need not be of fire-resistive construction within office spaces of a single tenant when the space is equipped with an approved automatic fire alarm system within the corridor. The actuation of any detector shall activate alarms audible in all areas served by the corridor.
- 65. ***Section 1018.6; amend to read as follows:
 - **1018.6, Corridor Continuity.** Fire-Resistance-Rated All corridors shall be continuous from the point of entry to an *exit*, and shall not be interrupted by intervening rooms. *{Exception unchanged}*
- 66. ***Section 1022.1; add exceptions #8 and #9 to read as follows:
 - 8. In other than occupancy Groups H and I, a maximum of 50 percent of egress stairways serving one adjacent floor are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Any two such interconnected floors shall not be open to other floors.
 - 9. In other than occupancy Groups H and I, interior egress stairways serving only the first and second stories of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 are not required to be enclosed, provided at least two means of egress are provided from both floors served by the unenclosed stairways. Such interconnected stories shall not be open to other stories.
- 67. ***Section 1022.9; amend section to read as follows:
 - **1022.9.** Smokeproof enclosures and pressurized stairways. In buildings required to comply with Section 403 or 405, each of the exit enclosures serving a story with a floor service not more than 75 feet (22 860 mm) <u>55 feet (16 764 mm)</u> above the lowest level of fire department vehicle access or more than 30 feet (9 144 mm) below... {remaining language unchanged}
- 68. ***Section 1024.1; change to read as follows:
 - **1024.1; General.** *Approved* luminous egress path markings delineating the exit path shall be provided in buildings of Groups A, B, E, I, M and R-1 having occupied floors located more than 75 feet (22 860 mm) <u>55 feet (16 764 mm)</u> above the lowest level of fire department vehicle access in accordance with... {*Remaining language unchanged*}
- 69. ***Section 1026.6; amend exception #4 to read as follows:

Exceptions: $\{Exceptions 1 - 3 unchanged\}$

- 4. Separation from the interior open-ended corridors of the building... {remaining language unchanged}
- 70. ***Section 1101.2; add an exception to read as follows:

Exception: Buildings regulated under State Law and built in accordance with State registered plans, including any variances or waivers granted by the State, shall be deemed to be in compliance with the requirements of this Chapter.

71. Section 1405.14; add an exception to read as follows:

Exception: Vinyl siding shall not be an approved material for installation on new and/or existing Group R-2, I-1, I-2, I-3 and I-4 occupancies.

- 72. **Table 1505.1; replace footnotes b and c with the following:
 - b. All individual replacement shingles or shakes shall be in compliance with the rating required by this table.
 - eb. Non-classified roof coverings shall be permitted on buildings of U occupancies having not more than 120 sq.ft. of projected roof area. When exceeding 120 sq.ft of projected roof area, buildings of U occupancies may use non-rated non-combustible roof coverings.
- 73. **Section 1505.7: delete the section.
- 74. **Section 1510.1; add a sentence to read as follows:

All individual replacement shingles or shakes shall be in compliance with the rating required by Table 1505.1.

- 75. Section 1612.3; Insert: City of Bedford
- 76. Section 1612.3; Insert: 09/25/2009
- 77. Section 1803.1.1; add Section 1803.1.1 to read as follows:
 - 1803.1.1; Excavation and Grading Guidelines: Where it is practical, 80 percent of a lot or tract shall be graded to the fronting street gutter. Drainage on the portion of a lot or tract below curb level shall not drain across more that one lot or tract before entering an approved drainage way.
- 78. **Section 2308.4.3; add Section 2308.4.3 to read as follows:

2308.4.3 Application to engineered design. When accepted by the Building Official, any portion of this section is permitted to apply to buildings that are otherwise outside the limitations of this section provided that:

- 1. The resulting design will comply with the requirements specified in Chapter 16;
- 2. The load limitations of various elements of this section are not exceeded; and
- 3. The portions of this section which will apply are identified by an engineer in the construction documents.
- 79. **Section [P]2901.1; add a sentence to read as follows:

The provisions of this Chapter are meant to work in coordination with the provisions of Chapter 4 of the International Plumbing Code. Should any conflicts arise between the two chapters, the Building Official shall determine which provision applies.

80. **Section 2902.1; change to read as follows and add sub sections:

[P]2902.1 Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number <u>as follows:</u>

- 1. <u>Assembly Occupancies: At least one drinking fountain shall be provided at each floor level in an approved location.</u>
 - **Exception:** A drinking fountain need not be provided in a drinking or dining establishment.
- 2. Groups A, B, F, H, I, M and S Occupancies: Buildings or portions thereof where persons are employed shall be provided with at least one water closet for each sex except as provided for in Section 2902.2.
- 3. Group E Occupancies: Shall be provided with fixtures as shown in Table 2902.1.
- 4. Group R Occupancies: Shall be provided with fixtures as shown in Table 2902.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 2902.1. Types of occupancies not shown in Table 2902.1 shall

be considered individually by the building code official. The number of occupants shall be determined by this code. Occupancy classification shall be determined in accordance with Chapter 3.

- 81. ***Section [P]2902.2; change Exception 3 as follows:
 - 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 100 or less.
- 82. ***Section 3006.1; add Section 3006.1 to read as follows and renumber remaining sections:

3006.1, General. Elevator machine rooms shall be provided. {Renumber remaining sections.}

- 83. ***Section [F] 3006.4 {[F] 3006.5 if previous amendment adopted}; add a sentence to read as follows and delete exceptions #1 and #2.:
 - **[F] 3006.4. Machine Rooms**: {language unchanged}... <u>Storage shall not be allowed within the elevator machine room.</u> <u>Provide approved signage at each entry door to the elevator machine room stating "Elevator Machinery No Storage Allowed."</u>
- 84. ***Section 3109.1; change to read as follows: **3109.1 General.** Swimming pools shall comply with the requirements of this section and other applicable sections of this code as well as also complying with applicable state laws.
- 85. Section 3412.2; Insert: the adoption date of this ordinance

Sec. 22-53 International Residential Code Adopted.

The International Residential Code, 2009 Edition and appendix chapters G and J as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-54 Amendments to the International Residential Code.

1. ***Section R101.1; Insert jurisdiction name as follows:

R101.1 Title. These regulations shall be known as the *Residential Code for One- and Two-family Dwellings* of the City of Bedford hereinafter referred to as "this *code*."

2. **Section R102.4; change to read as follows:

R102.4 Referenced codes and standards. The *codes*, when specifically adopted, and standards referenced in this *code* shall be considered part of the requirements of this *code* to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced *codes* and standards, each reference to said *code* and standard shall be considered to reference the amendments as well. Any reference made to NFPA 70 or the *Electrical Code* shall mean the *Electrical Code* as adopted.

Where differences occur between provisions of this *code* and referenced *codes* and standards, the provisions of this *code* shall apply.

Exception: Where enforcement . . . {remainder of language unchanged}. . . .

3. Section R105.2 (1); change to read as follows:

R105.2 (1): Playhouses and similar uses, provided the floor area does not exceed 50 square feet.

- 4. Section R105.2 (2); Delete
- 5. ***Section 108.7; add Section 108.7 to read as follows:

108.7 Re-inspection Fee. A fee as established by City Council resolution may be charged when:

- 1. The inspection called for is not ready when the inspector arrives;
- 2. No building address or permit card is clearly posted;
- 3. Approved plans are not on the job site available to the inspector;
- 4. The building is locked or work otherwise not available for inspection when called;
- 5. The job site is red-tagged twice for the same item;
- 6. The original red tag has been removed from the job site and/or,
- 7. Violations exist on the property including failure to maintain erosion control, trash control or tree protection.
- 8. Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.
- 6. **Section R109.1.3; change to read as follows:
 - **R109.1.3 Floodplain inspections.** For construction permitted in areas prone to flooding as established by Table R301.2(1), upon . . . {language unchanged} . . . construction, the building official may shall require submission . . . {language unchanged}.
- 7. **Section R110 (R110.1 through R110.5); delete the section.
- 8. **Section R112.2.1 & R112.2.2; delete the sections.
- 9. **Section R202; change definition of "Townhouse" to read as follows:

TOWNHOUSE. A single-family dwelling unit constructed in a group of three or more attached units <u>separated by property lines</u> in which each unit extends from foundation to roof and with a *yard* or *public way* on at least two sides.

10. ***Table R301.2(1); fill in as follows:

GROUND SNOW	WIND D	SEISMIC DESIGN	
LOAD	SPEED ^d (mph)	Topographic Effects ^k	CATEGORY [†]
5 lb/ft ²	90 (3-sec-gust)/76 fastest mile	<u>No</u>	<u>A</u>

SUBJECT TO DAMAGE FROM			
Weathering ^a	Frost line depth ^b	Termite ^c	
<u>moderate</u>	<u>6"</u>	very heavy	

WINTER DESIGN	ICE BARRIER UNDER-	FLOOD	AIR FREEZING	MEAN ANNUAL
TEMP ^e	LAYMENT REQUIRED ^h	HAZARDS ⁹	INDEX ⁱ	TEMP ^j
<u>22°F</u>	<u>No</u>	local code	<u>69°F</u>	<u>64.9°F</u>

{No change to footnotes}

11. **Section R302.1; add exception #6 to read as follows:

Exceptions: {previous exceptions unchanged}

- Open metal carport structures may be constructed when also approved within adopted ordinances.
- 12. ***Section R302.2, Exception; change to read as follows:

Exception: A common two-hour fire-resistance-rated wall assembly, or one-hour fire-resistance-rated wall assembly when equipped with a sprinkler system... {remainder unchanged}

13. ***Section R302.2.4, Exception 5; change to read as follows:

Exception:

- 5. Townhouses separated by a common <u>two-hour fire-resistance-rated wall, or one-hour fire resistant rated wall when equipped with an automatic sprinkler system, {remainder unchanged}</u>
- 14. ***Section R302.3; add Exception #3 to read as follows:

Exceptions:

- 1. {existing language unchanged}
- 2. {existing language unchanged}
- 3. Two-family dwelling units that are also divided by a property line through the structure shall be separated as required for townhouses.
- 15. ***Section 302.5.2; change to read as follows:
 - **R302.5.2 Duct penetration.** Ducts in the garage ... {language unchanged} ... and shall have no openings into the garage and shall be protected as required by Section 302.11, Item 4.
- 16. ***Section R302.5.3; amend the section as follows:
 - **R309.5.3 Other penetrations.** Penetrations through the separation required in Section R309.2 R302.6 shall be protected as required by Section R302.11, Item 4.
- 17. **Section R302.7; change to read as follows:
 - **R302.7 Under stair protection.** Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with 5/8-inch (15.8 mm) fire-rated 1/2-inch (12.7 mm) gypsum board or one-hour fire-resistive construction.
- 18. **Section R303.3, Exception; change to read as follows:

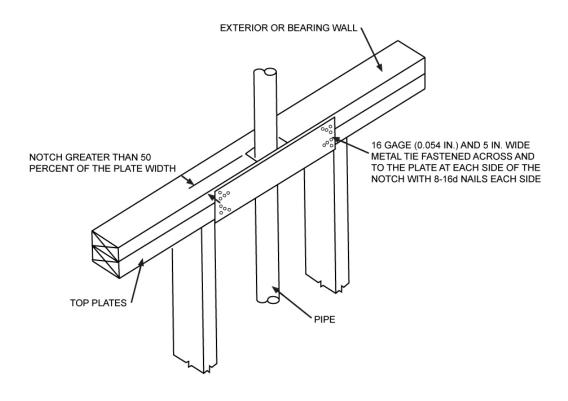
Exception: The glazed areas shall not be required where artificial light and a mechanical ventilation system, complying with one of the following, are provided.

- 1. The minimum ventilation rates shall be 50 cfm (24 L/s) for intermittent ventilation or 20 cfm (10 L/s) for continuous ventilation. Ventilation air from the space shall be exhausted directly to the outside.
- 2. Bathrooms that contain only a water closet, a lavatory, or water closet and a lavatory may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.
- 19. Section R401.3.1; add Section R401.3.1 to read as follows:
 - R401.3.1; Excavation and Grading Guidelines: Where it is practical, 80 percent of a lot or tract shall be graded to the fronting street gutter. Drainage on the portion of a lot or tract below curb level shall not drain across more that one lot or tract before entering an approved drainage way.
- 20. Section R602.6.1; amend the following:

R602.6.1 Drilling and notching of top plate. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, construction shall not be less than 2x6, a galvanized metal tie not less than 0.054 inch thick (1.37 mm) (16 Ga) and 1½ inches (38) mm 5 inches (127 mm) wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d (0.148 inch diameter) having a minimum length of 1½ inches (38 mm) at each side or equivalent. Fasteners will be offset to prevent splitting of the top plate material. The metal tie must extend a minimum of 6 inches past the opening. See figure R602.6.1.

***Figure R602.6.1; delete the figure and insert the following figure:

WALL CONSTRUCTION



For SI: 1 inch = 25.4 mm

FIGURE R602.6.1
TOP PLATE FRAMING TO ACCOMMODATE PIPING

21. **Section R703.7.4.1; add a second paragraph to read as follows:

In stud framed exterior walls, all ties shall be anchored to stude as follows:

- 1. When studs are 16 in (407 mm) o.c., stud ties shall be spaced no further apart than 24 in (737 mm) vertically starting approximately 12 in (381 mm) from the foundation; or
- 2. When studs are 24 in (610 mm) o.c., stud ties shall be spaced no further apart than 16 in (483 mm) vertically starting approximately 8 in (254 mm) from the foundation.
- 22. ***Section R902.1; Amend and add exception #3 to read as follows:

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B, or C roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet from a property line. {remainder unchanged}

Exceptions:

- 1. {unchanged}
- 2. {unchanged}
- 3. Non-classified roof coverings shall be permitted on playhouses and similar uses, provided the floor area does not exceed 50 square feet.
- 23. **Section R907.1; add a sentence to read as follows:

All individual replacement shingles or shakes shall comply with Section R902.1,

24. ***Section N1101.2; add Section N1101.2.2 to read as follows:

N1101.2.2 Compliance software tools. Software tools used to demonstrate energy code compliance utilizing the UA alternative approach shall be approved by the building official. The PNL program REScheck™ is not acceptable for residential compliance.

Exception: When **RES***check*TM "UA Trade-off" compliance approach or the UA Alternate compliance approach method is used, the compliance certificate must demonstrate that the maximum glazed area does not exceed 15% of the conditioned floor area.

- 25. ***Section N1102.1; change to read as follows:
 - **N1102.1 Insulation and fenestration criteria.** The building thermal envelope shall meet the requirements of Table N1102.1 based on the climate zone specified in Table N1101.2. The use of Tables N1102.1 and N1102.1.2 are limited to a maximum glazing area of 15% window area to floor area ratio.
- 26. **Section N1102.2.12; add Section N1102.2.12 to read as follows:
 - N1102.2.12. Insulation installed in walls. Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the *building official*.
- 27. ***Section M1305.1.3; change to read as follows:
 - **M1305.1.3** Appliances in attics. Attics containing appliances requiring access shall be provided . . . {bulk of paragraph unchanged} . . . sides of the appliance where access is required. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger and large enough to allow removal of the largest appliance. As a minimum, access to the attic space, provide one of the following:
 - 1. A permanent stair.
 - 2. A pull down stair with a minimum 300 lb (136 kg) capacity.
 - 3. An access door from an upper floor level.
 - 4. Access Panel may be used in lieu items 1, 2, and 3 with prior approval of the *building official* due to building conditions.

Exceptions:

- 1. The passageway and level service space are not required where the *appliance* can be serviced and removed through the required opening.
- 2. Where the passageway is unobstructed...{remainder unchanged}
- 28. ***Section M1305.1.3.1; add text to read as follows:

- **M1305.1.3.1 Electrical requirements.** A luminaire controlled by a switch located at the required passage-way opening and a receptacle outlet shall be installed at or near the *appliance* location in accordance with Chapter 39. Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.
- 29. **Section M1305.1.4.1; change to read as follows:
 - **M1305.1.4.1 Ground clearance.** Equipment and appliances supported from the ground shall be level and firmly supported on a concrete slab or other approved material extending above the adjoining ground a minimum of 3 inches (76 mm). Appliances suspended from the floor shall have a clearance of not less than 6 inches (152 mm) above the ground.
- 30. **Section M1305.1.4.3; add text to read as follows:
 - **M1305.1.4.3 Electrical requirements.** A luminaire controlled by a switch located at the required passage-way opening and a receptacle outlet shall be installed at or near the *appliance* location in accordance with Chapter 39. Low voltage wiring of 50 Volts or less shall be installed in a manner to prevent physical damage.
- 31. **Section M1307.3.1; delete.
- 32. ***Section M1411.3; change to read as follows:
 - **M1411.3 Condensate disposal**. Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to an approved place of disposal a sanitary sewer through a trap, by means of a direct or indirect drain. {remainder unchanged}
- 33. **Section M1411.3.1, Items 3 and 4; add text to read as follows:

M1411.3.1 Auxiliary and secondary drain systems. {bulk of paragraph unchanged}

- 1. {text unchanged}
- 2. {text unchanged}
- 3. An auxiliary drain pan... {bulk of text unchanged}... with Item 1 of this section. A water level detection device may be installed only with prior approval of the building official.
- 4. A water level detection device... {bulk of text unchanged}... overflow rim of such pan. A water level detection device may be installed only with prior approval of the building official.
- 34. ***Section M1411.3.1.1; add text to read as follows:
 - **M1411.3.1.1 Water-level monitoring devices.** On down-flow units... {bulk of text unchanged} ...installed in the drain line. A water level detection device may be installed only with prior approval of the building official.
- 35. ***Section M1501; add new Section M1501.2 to read as follows:
 - M1501.2 Material and size. Exhaust ducts shall have a smooth interior finish and shall be constructed of metal a minimum 0.016-inch (0.4mm) thick. The exhaust duct size shall be 4 inches (102 mm) nominal in diameter. Duct size shall not be reduced along its developed length or at termination.
- 36. ***Section M1501; add new Section M1501.3 to read as follows:
 - M1501.3 Specified length. The maximum length of the exhaust duct shall be 35 feet (10668 mm) from the connection to the transition duct from the *appliance* to the outlet terminal. Where

fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.

37. **Section M2005.2; change to read as follows:

M2005.2 Prohibited locations. Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that *combustion air* will not be taken from the living space. Access to such enclosure may be from the bedroom or bathroom when through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the *International Energy Conservation Code* and equipped with an *approved* self-closing device. Installation of direct-vent water heaters within an enclosure is not required.

- 38. **Section G2408.3 (305.5); delete.
- 39. **Section G2412.5 (401.5); add a second paragraph to read as follows:

Both ends of each section of medium pressure gas piping shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING 1/2 to 5 psi gas pressure Do Not Remove"

40. **Section G2413.3 (402.4.3); add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EDH).

- 41. **Section G2415.9.1 (404.9.1); delete.
- 42. **Section G2415.10 (404.10); change to read as follows:

G2415.10 (404.10) Minimum burial depth. Underground *piping systems* shall be installed a minimum depth of 12 inches (305 mm) <u>18 inches (457 mm)</u> below grade, except as provided for in Section G2415.10.1.

43. **Section G2417.1 (406.1); change to read as follows:

G2417.1 (406.1) General. Prior to acceptance and initial operation, all *piping* installations shall be inspected and *pressure tested* to determine that the materials, design, fabrication, and installation practices comply with the requirements of this *code*. The *permit* holder shall make the applicable tests prescribed in Sections 2417.1.1 through 2417.1.5 to determine compliance with the provisions of this *code*. The *permit* holder shall give reasonable advance notice to the *building official* when the *piping system* is ready for testing. The *equipment*, material, power and labor necessary for the inspections and test shall be furnished by the *permit* holder and the *permit* holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.

44. **Section G2417.4; change to read as follows:

G2417.4 (406.4) Test pressure measurement. Test pressure shall be measured with a manometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the *pressure test* period. The source of pressure shall be isolated before the *pressure tests* are made. Mechanical gauges Gauges used to measure... {remainder unchanged}

45. **Section G2417.4.1; change to read as follows:

G2417.4.1 (406.4.1) Test pressure. The test pressure to be used shall be not less than one and one-half times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge). or at the discretion of the Building Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. For tests requiring a pressure of 3 psig, mechanical gauges used to measure test pressures shall utilize a dial with a minimum diaphragm diameter of three and one half inches (3 ½"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, mechanical diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 1/2"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. have a range such that the highest end of the scale is not greater than five times the test pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure

water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.

- 46. **Section G2417.4.2; change to read as follows:
 - **G2417.4.2 (406.4.2) Test duration.** The test duration shall be held for a length of time satisfactory to the *Building Official*, but in no case for be not less than 40-fifteen (15) minutes. For welded *piping*, and for *piping* carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the *Building Official*, but in no case for less than thirty (30) minutes.
- 47. **Section G2420.1 (406.1); add Section G2420.1.4 to read as follows:
 - **G2420.1.4 Valves in CSST installations.** Shutoff *valves* installed with corrugated stainless steel (CSST) *piping systems* shall be supported with an approved termination fitting, or equivalent support, suitable for the size of the *valves*, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the *valve*. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's *piping*, fittings, and *valves* between anchors. All *valves* and supports shall be designed and installed so they will not be disengaged by movement of the supporting *piping*.
- 48. ***Section G2420.5.1 (409.5.1); add text to read as follows:
 - **G2420.5.1 (409.5.1) Located within the same room.** The shutoff valve... {bulk of paragraph unchanged}... in accordance with the appliance manufacturer's instructions. A secondary shutoff valve must be installed within 3 feet (914 mm) of the firebox if appliance shutoff is located in the firebox.
- 49. **Section G2421.1 (410.1); add text and Exception to read as follows:
 - **G2421.1 (410.1) Pressure regulators.** A line *pressure regulator* shall be ... {bulk of paragraph unchanged}... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

50. ***Section G2422.1.2.3 (411.1.3.3); delete Exception 1 and Exception 4.

G2422.1.2.3 (410.1) Pressure regulators. A line *pressure regulator* shall be ... {bulk of paragraph unchanged}... approved for outdoor installation. Access to regulators shall comply with the requirements for access to appliances as specified in Section M1305.

Exception: A passageway or level service space is not required when the *regulator* is capable of being serviced and removed through the required *attic* opening.

- 51. **Section G2439.5 (614.6); change text to read as follows:
 - **G2439.5 (614.6) Domestic clothes dryer exhaust ducts.** Exhaust ducts for domestic *clothes dryers* shall conform to the requirements of Sections <u>G2429.5.1G2439.5.1</u> through <u>G2429.5.7G2439.5.7</u>. The size of duct shall not be reduced along its developed length nor at the point of termination.
- 52. **Section G2445.2 (621.2); add Exception to read as follows:
 - **G2445.2 (621.2) Prohibited use.** One or more *unvented room heaters* shall not be used as the sole source of comfort heating in a *dwelling unit*.

Exception: Existing approved unvented room heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Building Official unless an unsafe condition is determined to exist as described in International Fuel Gas Code Section 108.7 of the Fuel Gas Code.

- 53. **Section G2448.1.1 (624.1.1); change to read as follows:
 - **G2448.1.1 (624.1.1) Installation requirements.** The requirements for *water heaters* relative to <u>access.</u> sizing, *relief valves*, drain pans and scald protection shall be in accordance with this *code*.
- 54. **Section P2503.6; change to read as follows:
 - **P2503.6 Shower liner test.** Where shower floors and receptors are made water tight by the application of materials required by Section P2709.2, the completed liner installation shall be tested. The pipe from the shower drain shall be plugged water tight for the test. The floor and receptor area shall be filled with potable water to a depth of not less than 2 inches (51 mm) measured at the threshold. Water shall be held in the section under test for a period of 15 minutes. The system shall prove leak free by visual inspection.
- 55. Section P2603.6.1; Insert: 12 inches, 12 inches
- 56. **Section P2709.2; add Exception to read as follows:

Exception: Showers designed to comply with ICC/ANSI A117.1.

- 57. **Section P2717.2; change text to read as follows:
 - **P2717.2 Sink and dishwasher.** A sink and dishwasher are permitted ... {bulk of text unchanged} ... wye fitting to the sink tailpiece. The dishwasher waste line shall rise and be securely fastened to the underside of the counter before connecting to the sink tailpiece. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece shall connect to a deck mounted air break.
- 58. **Section P2717.3; change text to read as follows:
 - **P2717.3 Sink, dishwasher and food grinder.** The combined discharge ... {bulk of text unchanged} ... head of the food grinder. The dishwasher waste line shall rise and be securely fastened to the underside of the counter before connecting to the sink tailpiece or the food

grinder. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder shall connect to a deck mounted air break.

59. Section 2801.4.1; Add Section 2801.4.1 to read as follows:

2801.4.1 Installation in new construction. For new construction, water heaters shall not be installed in attics.

60. **Section P2801.6; add Exception to read as follows:

Exceptions:

- 1. Elevation of the ignition source is not required for water heaters that are listed as flammable vapor resistant and for installation without elevation.
- 2. Electric Water Heater.
- 61. **Section P2902.5.3; change to read as follows:

P2902.5.3 Lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

62. Section P2902.5.3.1; Add section to read as follows:

P2902.5.3.1: Irrigation System Rain and Freeze Sensors.

- Any irrigation system installed within the City on or after March 1, 2008 must be equipped with rain and freeze sensors.
- 2. For commercial, multifamily and homeowner association common areas, no irrigation system may be operated after March 1, 2010 without being equipped with rain and freeze sensors.
- 63. **Section P3005.2.6; change to read as follows:

P3005.2.6 Base of stacks <u>Upper Terminal</u>. A cleanout shall be provided at the base of each waste or soil stack. Each horizontal drain shall be provided with a cleanout at its upper terminal.

Exception: Cleanouts may be omitted on a horizontal drain less than five (5) feet (1524 mm) in length unless such line is serving sinks or urinals.

- 64. **Section P3111; delete.
- 65. **Section P3112.2; delete and replace with the following:

P3112.2 Installation. Traps for island sinks and similar equipment shall be roughed in above the floor and may be vented by extending the vent as high as possible, but not less than the drainboard height and then returning it downward and connecting it to the horizontal sink drain immediately downstream from the vertical fixture drain. The return vent shall be connected to the horizontal drain through a wye-branch fitting and shall, in addition, be provided with a foot vent taken off the vertical fixture vent by means of a wye-branch immediately below the floor and extending to the nearest partition and then through the roof to the open air or may be connected to other vents at a point not less than six (6) inches (152 mm) above the flood level rim of the fixtures served. Drainage

fittings shall be used on all parts of the vent below the floor level and a minimum slope of one-quarter (1/4) inch per foot (20.9 mm/m) back to the drain shall be maintained. The return bend used under the drainboard shall be a one (1) piece fitting or an assembly of a forty-five (45) degree (0.79 radius), a ninety (90) degree (1.6 radius) and a forty-five (45) degree (0.79 radius) elbow in the order named. Pipe sizing shall be as elsewhere required in this Code. The island sink drain, upstream of the return vent, shall serve no other fixtures. An accessible cleanout shall be installed in the vertical portion of the foot vent.

Sec. 22-55 International Mechanical Code Adopted.

The International Mechanical Code, 2009 Edition as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

- Sec. 22-56 Amendments to the International Mechanical Code.
 - 1. Section 101.1; Insert: City of Bedford
 - 2. **Section 102.8; change to read as follows:
 - **102.8 Referenced codes and standards.** The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.
 - 3. Section 106.5.2; insert "Appendix A Schedule of fees"
 - 4. Section 106.5.3; Change to read as follows:
 - **106.5.3: Fee refunds.** The code official shall authorize the refunding of fees as provided for in the "Appendix A Schedule of fees"
 - 5. Section 108.4; Change to read as follows:
 - **108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.
 - 6. **Section 304.6; delete.
 - 7. ***Section 306.3; change to read as follows:
 - **306.3 Appliances in attics.** Attics containing appliances requiring *access* shall be provided . . . *{bulk of paragraph unchanged}* . . . side of the appliance. The clear *access* opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), <u>or larger</u> where such dimensions are <u>not</u> large enough to allow removal of the largest appliance. <u>As a minimum, for access</u> to the attic space, provide one of the following:
 - 5. A permanent stair.
 - 6. A pull down stair with a minimum 300 lb (136 kg) capacity.
 - 7. An access door from an upper floor level.
 - 8. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

- 1. The passageway and level service space are not required where the appliance is capable of being serviced and removed... {remainder of section unchanged}
- 8. ***Section 306.5; change to read as follows:
 - **306.5** Equipment and appliances on roofs or elevated structures. Where equipment requiring access and appliances are installed on roofs or elevated structures at a an aggregate height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access, the extent of which shall be from Permanent exterior ladders providing roof access need not extend closer than-8-12 feet (2438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall . . . {language unchanged}. . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). . . {remaining language unchanged}.
- 9. ***Section 306.5.1; change to read as follows:
 - **306.5.1 Sloped roofs.** Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25 percent slope) or greater on roofs having slopes greater than 4 units vertical in 12 units horizontal and having an edge more than 30 inches (762 mm) above grade at such edge, a <u>catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof *access* to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which *access* is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.</u>
- 10. **Section 306.6; add Section 306.6 to read as follows:
 - <u>306.6 Water heaters above ground or floor.</u> When the mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

- **306.6.1** Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 306.3.1.
- 11. **Section 307.2.2; change to read as follows:
 - **307.2.2 Drain pipe materials and sizes.** Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, ABS, CPVC or <u>schedule 80</u> PVC pipe or tubing <u>when exposed to ultra violet light</u>. All components shall be selected for the pressure, <u>and</u> temperature, <u>and exposure</u> rating of the installation. {*Remaining language unchanged*}
- 12. **Section 307.2.3; amend # 2 to read as follows:
 - 2. A separate overflow drain line shall be connected to the drain pan provided with the equipment. Such overflow drain shall discharge to a conspicuous point of disposal to alert occupants in the event of a stoppage of the primary drain. The overflow drain line shall connect to the drain pan at a higher level than the primary drain connection. However, the

conspicuous point shall not create a hazard such as dripping over a walking surface or other areas so as to create a nuisance.

- 13. **Section 403.2.1; add an item #5 to read as follows:
 - 5. <u>Toilet rooms within private dwellings that contain only a water closet, lavatory or combination thereof may be ventilated with an approved mechanical recirculating fan or similar device designed to remove odors from the air.</u>
- 14. **Section 501.2; add an exception to read as follows:
 - **501.2 Exhaust discharge.** The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a nuisance and not less than the distances specified in Section 501.2.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or crawl space.

Exceptions:

- 1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
- 2. Commercial cooking recirculating systems.
- 3. <u>Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.</u>
- 15. **Section 504.6; add a sentence at the end of the paragraph to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

16. **Section 607.5.1; change to read as follows:

607.5.1 Fire Walls. Ducts and air transfer openings permitted in fire walls in accordance with Section 705.11 of the International Building Code shall be protected with listed fire dampers installed in accordance with their listing. For hazardous exhaust systems see Section 510.1-510.9 IMC.

Sec. 22-57 International Plumbing Code Adopted.

The International Plumbing Code, 2009 Edition and appendix chapters B, C, D, E, F and G as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-58 Amendments to the International Plumbing Code.

- 1. Section 101.1; Insert: City of Bedford
- 2. **Table of Contents, Chapter 7, Section 714; change to read as follows:

- 3. **Section 102.8; change to read as follows:
 - **102.8 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Chapter 13 and such codes, when specifically adopted, and standards shall be considered as part of the requirements of this code to the prescribed extent of each such reference. Where the differences occur between provisions of this code and the referenced standards, the provisions of this code shall be the minimum requirements. Whenever amendments have been adopted to the referenced codes and standards, each reference to said

- code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC *Electrical Code* shall mean the Electrical Code as adopted.
- 4. Section 106.6.2; insert "Appendix A Schedule of fees"
- 5. Section 106.6.3; Change to read as follows:
 - **106.6.3:** Fee refunds. The code official shall authorize the refunding of fees as provided for in the "Appendix A Schedule of fees"
- 6. Section 108.4; Change to read as follows:
 - **108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.
- 7. **Section 109; Delete entire section and insert the following:

SECTION 109 MEANS OF APPEAL

- **109.1 Application for appeal.** Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.
- 8. **Section 305.6.1; change to read as follows:
 - **305.6.1 Sewer depth.** Building sewers that connect to private sewage disposal systems shall be a minimum of [number] inches (mm) below finished grade at the point of septic tank connection. Building sewers shall be a minimum of <u>12</u> inches (<u>304</u> mm) below grade.
- 9. **Section 305.9; change to read as follows:
 - **305.9 Protection of components of plumbing system.** Components of a plumbing system installed <u>within 3 feet</u> along alleyways, driveways, parking garages or other locations <u>in a manner in which they would be</u> exposed to damage shall be recessed into the wall or otherwise protected in an *approved* manner.
- 10. **Section 310.4; delete.
- 11. **Section 310.5; delete.
- 12. **Sections 312.10.1 and 312.10.2; change to read as follows:
 - **312.10.1 Inspections.** Annual inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable. <u>In the absence of local provisions, the owner is responsible to ensure that testing is performed.</u>
 - **312.10.2 Testing.** Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with applicable local provisions. In the absence of local provisions, the owner is responsible to ensure that testing is done in accordance with one of the following standards:

{list of standards unchanged}

- 13. ***Section 314.2.1; change to read as follows:
 - **314.2.1 Condensate disposal.** Condensate from all cooling coils and evaporators shall be conveyed from the drain pan outlet to an approved place of disposal. ... {language unchanged} ... Condensate shall not discharge into a street, alley, sidewalk, rooftop, or other areas so as to cause a nuisance.
- 14. ***Section 314.2.2; change to read as follows:
 - **314.2.2 Drain pipe materials and sizes.** Components of the condensate disposal system shall be cast iron, galvanized steel, copper, cross-linked polyethylene, polybutylene, polyethylene, polyethylene, ABS, CPVC, or schedule 80 PVC pipe or tubing when exposed to ultra violet light. All components shall be selected for the pressure, and temperature and exposure rating of the installation. Joints and connections shall be made in accordance with the applicable provisions of Chapter 7 relative to the material type. Condensate waste and drain line size shall not be less than ³/₄-inch (19 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with Table 314.2.2. <u>All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope.</u>
- 15. **Section 401.1; add a sentence to read as follows:

The provisions of this Chapter are meant to work in coordination with the provisions of the Building Code. Should any conflicts arise between the two chapters, the Code Official shall determine which provision applies.

- 16. **Section 403.1; change to read as follows:
 - **403.1 Minimum number of fixtures.** Plumbing fixtures shall be provided for the type of occupancy and in the minimum number <u>as follows:</u>
 - 5. <u>Assembly Occupancies: At least one drinking fountain shall be provided at each floor level in an approved location.</u>
 - **Exception:** A drinking fountain need not be provided in a drinking or dining establishment.
 - 6. Groups A, B, F, H, I, M and S Occupancies: Buildings or portions thereof where persons are employed shall be provided with at least one water closet for each sex except as provided for in Section 403.2.
 - 7. Group E Occupancies: Shall be provided with fixtures as shown in Table 403.1.
 - 8. Group R Occupancies: Shall be provided with fixtures as shown in Table 403.1.

It is recommended, but not required, that the minimum number of fixtures provided also comply with the number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the *International Building Code*. Occupancy classification shall be determined in accordance with the *International Building Code*.

- 17. **Section 403.1.2; add Section 403.1.2 to read as follows:
 - **403.1.2 Finish material.** Finish materials shall comply with Section 1209 of the *International Building Code*.
- 18. **Section 405.6; delete.
- 19. **Section 409.2; change to read as follows:
 - **409.2 Water connection.** The water supply to a <u>commercial</u> dishwashing machine shall be protected against backflow by an air gap or backflow preventer in accordance with Section 608.

20. **Section 410.1; change to read as follows:

410.1 Approval. Drinking fountains shall conform to ASME A112.19.1M, ASME A112.19.2M or ASME A112.19.9M, and water coolers shall conform to ARI 1010. Drinking fountains and water coolers shall conform to NSF 61, Section 9. Where water is served in restaurants or where bottled water coolers are provided in other occupancies, drinking fountains shall not be required. In other occupancies, where drinking fountains are required, bottled water dispensers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

Exception: A drinking fountain need not be provided in a drinking or dining establishment.

21. **Section 412.4; change to read as follows:

412.4 Required location Public laundries and central washing facilities. Floor drains shall be installed in the following areas.

- 1. In public coin-operated laundries and in the central washing facilities of multiple family dwellings, the rooms containing automatic clothes washers shall be provided with floor drains located to readily drain the entire floor area. Such drains shall have a minimum outlet of not less than 3 inches (76 mm) in diameter.
- 2. Commercial kitchens. In lieu of floor drains in commercial kitchens, the code official may accept floor sinks.
- 22. **Section 417.5; change to read as follows:
 - **417.5 Shower floors or receptors.** Floor surfaces shall be constructed of impervious, noncorrosive, nonabsorbent and waterproof materials.

Thresholds shall be a minimum of 2 inches (51 mm) and a maximum of 9 inches (229 mm), measured from top of the drain to top of threshold or dam. Thresholds shall be of sufficient width to accommodate a minimum twenty-two (22) inch (559 mm) door.

Exception: Showers designed to comply with ICC/ANSI A117.1.

- 23. ***Section 417.5.2; change to read as follows:
 - 417.5.2 Shower lining. Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made water tight utilizing material complying with Sections 417.5.2.1 through 417.5.2.5. Such liners shall turn up on all sides at least 2 3 inches (54 76 mm) above the finished threshold level and shall extend outward over the threshold and fastened to the outside of the threshold jamb. Liners shall be recessed and fastened to an approved backing so as not to occupy the space required for wall covering, and shall not be nailed or perforated at any point less than 1 inch (25 mm) above the finished threshold. Liners shall be pitched one-fourth unit vertical in 12 units horizontal (2-percent slope) and shall be sloped toward the fixture drains and be securely fastened to the waste outlet at the seepage entrance, making a water-tight joint between the liner and the outlet. The completed liner shall be tested in accordance with Section 312..9 and Section 417.7.
- 24. **Section 417.7; add Section 417.7 to read as follows:
 - <u>417.7 Test for shower receptors.</u> Shower receptors shall be tested for water tightness by filling with water to the level of the rough threshold. The drain shall be plugged in a manner so that both sides of pans shall be subjected to the test at the point where it is clamped to the drain.
- 25. **Section 419.3; change to read as follows:

- **419.3 Surrounding material.** Wall and floor space to a point 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor and at least 2 feet (610 mm) to each side of the urinal shall be waterproofed with a smooth, readily cleanable, hard, nonabsorbent material.
- 26. **Section 502.3; change to read as follows:

502.3 Water heaters installed in attics.

Attics containing a water heater shall be provided with an opening and unobstructed passageway large enough to allow removal of the water heater. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096 mm) in length when measured along the centerline of the passageway from the opening to the water heater. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space at least 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the water heater. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), or larger where such dimensions are not large enough to allow removal of the water heater.

- 27. Section 502.3.1; Add Section 502.3.1 to read as follows:
 - **502.3.1 Installation in new construction**. For new construction, water heaters shall not be installed in attics.
- 28. **Section 502.6; Add Section 502.6 to read as follows:
 - 502.6 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10 gallon water heater (or larger with approval) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

- <u>502.6.1 Illumination and convenience outlet.</u> Whenever the mezzanine or platform is not adequately lighted or access to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 502.1.
- 29. Section 503.1.1: Add Section 503.1.1 to read as follows:

Section 503.1.1 Auto shut-off valve. When unable to provide proper disposal for the pan or temperature pressure relief as required by section 504, the cold water supply line to each hot water storage tank or water heater shall be provided with an approved automatic shutoff device.

Exception: Alternative means of disposal may be approved by the building official.

- 30. ***Section 504.6; change to read as follows:
 - **504.6 Requirements for discharge piping.** The discharge piping serving a pressure relief valve, temperature relief valve or combination thereof shall:
 - 1. Not be directly connected to the drainage system.
 - 2. Discharge through an air gap. located in the same room as the water heater.
 - 3. Not be smaller than the diameter of the outlet of the valve served and shall discharge full size to the air gap.
 - 4. Serve a single relief device and shall not connect to piping serving any other relief device or equipment.

Exception: Multiple relief devices may be installed to a single T & P discharge piping system when *approved* by the administrative authority and permitted by the manufactures installation instructions and installed with those instruction..

- 5. Discharge to the floor, to a <u>an indirect</u> waste receptor or to the outdoors. <u>Where discharging to the outdoors in areas subject to freezing, discharge piping shall be first piped to an indirect waste receptor through an air gap located in a conditioned area.</u>
- 6. Discharge in a manner that does not cause personal injury or structural damage.
- 7. Discharge to a termination point that is readily observable by the building occupants.
- 8. Not be trapped.
- 9. Be installed so as to flow by gravity.
- 10. Not terminate <u>Imore less</u> than 6 inches or more <u>than 24 inches (152 mm)</u> above <u>grade</u> the floor or more than 6 inches above the waste receptor.
- 11. Not have a threaded connection at the end of such piping.
- 12. Not have valves or tee fittings.
- 13. Be constructed of those materials listed in Section 605.4 or materials tested, rated and *approved* for such use in accordance with ASME A112.4.1.
- 31. **Section 504.7.3; add Section 504.7.3 to read as follows:
 - **504.7.3 Pan alarm.** Where a pan is required by this code, an audible alarm for moisture detection shall be installed within the pan.
- 32. **Section 604.4; add Section 604.4.1 to read as follows:
 - <u>604.4.1 State maximum flow rate.</u> Where the State mandated maximum flow rate is more restrictive than those of this section, the State flow rate shall take precedence.
- 33. **Section 606.1; delete items #4 and #5.
- 34. **Section 606.2; change to read as follows:

606.2 Location of shutoff valves. Shutoff valves shall be installed in the following locations:

- On the fixture supply to each plumbing fixture other than bathtubs and showers in one- and two-family residential occupancies, and other than in individual sleeping units that are provided with unit shutoff valves in hotels, motels, boarding houses and similar occupancies.
- 2. On the water supply pipe to each sillcock.
- 3. 2 On the water supply pipe to each appliance or mechanical equipment.
- 35. **Section 608.1; change to read as follows:
 - **608.1 General.** A potable water supply system shall be designed, installed and maintained in such a manner so as to prevent contamination from nonpotable liquids, solids or gases being introduced into the potable water supply through cross-connections or any other piping connections to the system. Backflow preventer applications shall conform to <u>applicable local regulations</u>, Table 608.1, <u>except and</u> as specifically stated in Sections 608.2 through 608.16.10.
- 36. **Section 608.16.5; change to read as follows:

608.16.5 Connections to lawn irrigation systems.

The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double-check assembly or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

37. **Section 608.17; change to read as follows:

- **608.17 Protection of individual water supplies.** An individual water supply shall be located and constructed so as to be safeguarded against contamination in accordance with <u>applicable local regulations</u>. In the absence of other local regulations, installation shall be in accordance with Sections 608.17.1 through 608.17.8.
- 38. **Section 610.1; add exception to read as follows:
 - **610.1 General**. New or repaired potable water systems shall be purged of deleterious matter and disinfected prior to utilization. The method to be followed shall be that prescribed by the health authority or water purveyor having jurisdiction or, in the absence of a prescribed method, the procedure described in either AWWA C651 or AWWA C652, or as described in this section. This requirement shall apply to "on-site" or "inplant" fabrication of a system or to a modular portion of a system.
 - 1. The pipe system shall be flushed with clean, potable water until dirty water does not appear at the points of outlet.
 - 2. The system or part thereof shall be filled with a water/chlorine solution containing at least 50 parts per million (50 mg/L) of chlorine, and the system or part thereof shall be valved off and allowed to stand for 24 hours; or the system or part thereof shall be filled with a water/chlorine solution containing at least 200 parts per million (200 mg/L) of chlorine and allowed to stand for 3 hours.
 - 3. Following the required standing time, the system shall be flushed with clean potable water until the chlorine is purged from the system.
 - 4. The procedure shall be repeated where shown by a bacteriological examination that contamination remains present in the system.

Exception: With prior approval the Code Official may wave this requirement when deemed unnecessary by the Code Official.

- 39. **Section 712.5; add Section 712.5 to read as follows:
 - **712.5 Dual Pump System.** All sumps shall be automatically discharged and, when in any "public use" occupancy where the sump serves more than 10 fixture units, shall be provided with dual pumps or ejectors arranged to function independently in case of overload or mechanical failure. For storm drainage sumps and pumping systems, see Section 1113.
- 40. **Section 714, 714.1; change to read as follows:

SECTION 714 ENGINEERED COMPUTERIZED DRAINAGE DESIGN

- **714.1 Design of drainage system.** The sizing, design and layout of the drainage system shall be permitted to be designed by *approved* computer design methods.
- 41. **Section 802.1.6; change to read as follows:
 - **802.1.6 Domestic dishwashing machines.** Domestic dishwashing machines shall discharge indirectly through an air gap or air break into a standpipe or waste receptor in accordance with Section 802.2, or discharge into a wye-branch fitting on the tailpiece of the kitchen sink or the dishwasher connection of a food waste grinder. The waste line of a domestic dishwashing machine discharging into a kitchen sink tailpiece or food waste grinder shall connect to a deckmounted air gap. or the waste line shall rise and be securely fastened to the underside of the sink rim or counter.
- 42. **Section 802.4; add a sentence to the end of the paragraph to read as follows:

No standpipe shall be installed below the ground.

43. **Section 904.1; change to read as follows:

- **904.1 Roof extension.** All open vent pipes that extend through a roof shall be terminated at least six (6) inches (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.
- 44. **Section 906.1; change to read as follows:
 - **906.1 Distance of trap from vent.** Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in Table 906.1.

Exception: The developed length of the fixture drain from the trap weir to the vent fitting for self-siphoning fixtures, such as water closets, shall not be limited.

- 45. **Section 912.1; change to read as follows:
 - **912.1 Type of fixture.** A combination drain and vent system shall not serve fixtures other than floor drains, sinks, lavatories, and drinking fountains standpipes, and indirect waste receptors. Combination drain and vent systems shall not receive the discharge from a food waste grinder or clinical sink.
- 46. Section 917.1; change to read as follows:
 - 917.1 General. Vent systems shall not utilize air admittance valves unless venting to outside air cannot be achieved as determined by the building official. When venting cannot be achieved from outside air, vent systems utilizing air admittance valves shall comply with this section. Stack type air admittance valves shall conform to ASSE 1050. (remainder of text unchanged)
- 47. **Section 1002.10; delete.
- 48. ***Section 1003.3.4.1; change to read as follows:
 - **1003.3.4.1 Grease interceptor capacity.** Applications that produce a total flow-through rating of 25 (gpm) gallons per minute or less, or grease retention of 50 (lbs) pounds or less shall require a minimum size trap of 100 (lbs) pounds grease retention capacity. Applications that produce a total flow-through rating of more than 25 (gpm) gallons per minute or more that 50 pounds (lbs) of grease retention shall require interceptor capacity to be sized by an engineer.
- 49. Section 1003.10.; change to read as follows:
 - **1003.10** Access and maintenance of interceptors and separators. Interceptors and separators shall be installed outside and below ground of the facility it serves. Access shall be provided to each interceptor and separator for service and *(remainder of text unchanged)*.
- 50. ***Section 1101.8; change to read as follows:
 - **1101.8 Cleanouts required.** Cleanouts shall be installed in the <u>building</u> storm drainage system and shall comply with the provisions of this code for sanitary drainage pipe cleanouts.

Exception: Subsurface drainage system

- 51. **Section 1106.1; change to read as follows:
 - **1106.1 General.** The size of the vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on <u>six (6) inches per hour the 100-year hourly</u> rainfall rate <u>indicated in Figure 1106.1 or on other rainfall rates determined from *approved* local weather data.</u>

52. ***Section 1107.3; change to read as follows:

1107.3 Sizing of secondary drains. Secondary (emergency) roof drain systems shall be sized in accordance with Section 1106 based on the rainfall rate for which the primary system is sized in Figure 1106.1 or on other rainfall rates determined from approved local weather data. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.7. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

53. ***Section 1202.1; delete Exception 2.

Sec. 22-59 International Fuel Gas Code Adopted.

The International Fuel Gas Code, 2009 Edition and appendix chapters A, B and C as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-60 Amendments to the International Fuel Gas Code.

- 1. Section 101.1; Insert: City of Bedford
- 2. **Section 101.2: Change to read as follows:

Exception: 2. As an alternative..(text unchanged).. construction shall comply with the provisions of the International Building Code.

3. **Section 102.2; add an exception to read as follows:

Exception: Existing dwelling units shall comply with Section 621.2.

4. **Section 102.8; change to read as follows:

102.8 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 8 and such codes, when specifically adopted, and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between provisions of this code and the referenced standards, the provisions of this code shall apply. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the amendments as well. Any reference to NFPA 70 or the ICC Electrical Code shall mean the Electrical Code as adopted.

- 5. Section 106.6.2; insert "Appendix A Schedule of fees"
- 6. Section 106.6.3; Change to read as follows:

106.6.3: Fee refunds. The code official shall authorize the refunding of fees as provided for in the "Appendix A Schedule of fees"

7. Section 108.4; Change to read as follows:

108.4: Violation Penalties. Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.

- 8. **Section 304.10; change to read as follows:
 - **304.10 Louvers and grilles.** The required size of openings for combustion, ventilation and dilution air shall be based on the net free area of each opening. Where the free area through a design of louver, grille or screen is known, it shall be used in calculating the size opening required to provide the free area specified. Where the design and free area of louvers and grilles are not known, it shall be assumed that wood louvers will have 25-percent free area and metal louvers and grilles will have 75-50-percent free area. Screens shall have a mesh size not smaller than ¼ inch (6.4 mm). Nonmotorized louvers and grilles shall be fixed in the open position. Motorized louvers shall be interlocked with the appliance so that they are proven to be in the full open position prior to main burner ignition and during main burner operation. Means shall be provided to prevent the main burner from igniting if the louvers fail to open during burner start-up and to shut down the main burner if the louvers close during operation.
- 9. **Section 304.11; change #8 to read as follows:

304.11 Combustion air ducts.

Combustion air ducts shall comply with all of the following:

- 1. Ducts shall be constructed of galvanized steel complying with Chapter 6 of the International Mechanical Code or of a material having equivalent corrosion resistance, strength and rigidity.
 - **Exception:** Within dwellings units, unobstructed stud and joist spaces shall not be prohibited from conveying combustion air, provided that not more than one required fireblock is removed.
- 2. Ducts shall terminate in an unobstructed space allowing free movement of combustion air to the appliances.
- 3. Ducts shall serve a single enclosure.
- 4. Ducts shall not serve both upper and lower combustion air openings where both such openings are used. The separation between ducts serving upper and lower combustion air openings shall be maintained to the source of combustion air.
- 5. Ducts shall not be screened where terminating in an attic space.
- 6. Horizontal upper combustion air ducts shall not slope downward toward the source of combustion air.
- 7. The remaining space surrounding a chimney liner, gas vent, special gas vent or plastic piping installed within a masonry, metal or factory-built chimney shall not be used to supply combustion air.
 - **Exception:** Direct-vent gas-fired appliances designed for installation in a solid fuel-burning fireplace where installed in accordance with the manufacturer's instructions.
- 8. Combustion air intake openings located on the exterior of a building shall have the lowest side of such openings located not less than 12 inches (305 mm) vertically from the adjoining ground level or the manufacturer's recommendation, whichever is more restrictive.
- 10. **Section 305.5 Private garages; delete.
- 11. ***Section 306.3; change to read as follows:
 - **[M] 306.3 Appliances in attics.** Attics containing appliances requiring *access* shall be provided . . . {bulk of paragraph unchanged} . . . side of the appliance. The clear access opening dimensions shall be a minimum of 20 inches by 30 inches (508 mm by 762 mm), and or larger where such dimensions are not large enough to allow removal of the largest appliance. As a minimum, for access to the attic space, provide one of the following:
 - 9. A permanent stair.
 - 10. A pull down stair.
 - 11. An access door from an upper floor level.
 - 12. Access Panel may be used in lieu of items 1, 2, and 3 with prior approval of the code official due to building conditions.

Exceptions:

- 1. The passageway and level service space are not required where the *appliance* is capable of being serviced and removed through the required opening.
- 2. Where the passageway is not less than ... {bulk of section to read the same}.
- 12. ***Section 306.5; change to read as follows:
 - [M] 306.5 Equipment and appliances on roofs or elevated structures. Where equipment requiring access and appliances are installed on roofs or elevated structures at a an aggregate height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access, the extent of which shall be from Permanent exterior ladders providing roof access need not extend closer than-8-12 feet (2438 mm) to the finish grade or floor level below and shall extend to the equipment and appliances' level service space. Such access shall . . . {bulk of section to read the same}. . . on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). ... {bulk of section to read the same}.
- 13. **Section 306.5.1; change to read as follows:
 - **[M]** 306.5.1 Sloped roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater on roofs having slopes greater than 4 units vertical in 12 units horizontal and having an edge more than 30 inches (762 mm) above grade at such edge, a <u>catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the appliance to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*.</u>
- 14. **Add Section 306.7 to read as follows:
 - 306.7 Water heaters above ground or floor. When the attic, roof, mezzanine or platform in which a water heater is installed is more than eight (8) feet (2438 mm) above the ground or floor level, it shall be made accessible by a stairway or permanent ladder fastened to the building.

Exception: A max 10 gallon water heater (or larger when approved by the *code official*) is capable of being accessed through a lay-in ceiling and a water heater is installed is not more than ten (10) feet (3048 mm) above the ground or floor level and may be reached with a portable ladder.

- <u>306.7.1. Illumination and convenience outlet.</u> Whenever the mezzanine or platform is not adequately lighted or *access* to a receptacle outlet is not obtainable from the main level, lighting and a receptacle outlet shall be provided in accordance with Section 306.3.1.
- 15. **Section 401.5; add a second paragraph to read as follows:

Both ends of each section of medium pressure corrugated stainless steel tubing (CSST) shall identify its operating gas pressure with an approved tag. The tags are to be composed of aluminum or stainless steel and the following wording shall be stamped into the tag:

"WARNING 1/2 to 5 psi gas pressure Do Not Remove"

16. **Section 402.3; add an exception to read as follows:

Exception: Corrugated stainless steel tubing (CSST) shall be a minimum of 1/2" (18 EHD).

- 17. **Section 404.10; change to read as follows:
 - **404.10 Minimum burial depth.** Underground piping systems shall be installed a minimum depth of <u>42 18</u> inches (<u>305 458</u> mm) <u>top of pipe</u> below grade, <u>except as provided for in Section 404.10.1</u>.
- 18. **Section 404.10.1; delete.
- 19. **Section 406.1; change to read as follows:
 - **406.1 General.** Prior to acceptance and initial operation, all piping installations shall be inspected and pressure tested to determine that the materials, design, fabrication, and installation practices comply with the requirements of this code. The permit holder shall make the applicable tests prescribed in Sections 406.1.1 through 406.1.5 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the piping system is ready for testing. The equipment, material, power and labor necessary for the inspections and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests.
- 20. **Section 406.4; change to read as follows:
 - **406.4 Test pressure measurement.** Test pressure shall be measured with a monometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.
- 21. **Section 406.4.1; change to read as follows:
 - 406.4.1 Test pressure. The test pressure to be used shall be no less than 1 1/2 times the proposed maximum working pressure, but no less than 3 3 psig (20 kPa gauge), or at the discretion of the Code Official, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe. For tests requiring a pressure of 3 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one half inches (3 1/2"), a set hand, 1/10 pound incrementation and pressure range not to exceed 6 psi for tests requiring a pressure of 3 psig. For tests requiring a pressure of 10 psig, diaphragm gauges shall utilize a dial with a minimum diameter of three and one-half inches (3 ½"), a set hand, a minimum of 2/10 pound incrementation and a pressure range not to exceed 20 psi. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa) (1/2 psi) and less than 200 inches of water column pressure (52.2 kPa) (7.5 psi), the test pressure shall not be less than ten (10) pounds per square inch (69.6 kPa). For piping carrying gas at a pressure that exceeds 200 inches of water column (52.2 kPa) (7.5 psi), the test pressure shall be not less than one and one-half times the proposed maximum working pressure.
- 22. **Section 406.4.2; change to read as follows:
 - **406.4.2 Test duration.** Test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than fifteen (15) minutes. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches water column pressure (3.48 kPa), the test duration shall be held for a length of time satisfactory to the Code Official, but in no case for less than thirty (30) minutes. (Delete remainder of section.)

- 23. **Add Section 409.1.4 to read as follows:
 - **409.1.4 Valves in CSST installations.** Shutoff valves installed with corrugated stainless steel (CSST) piping systems shall be supported with an *approved* termination fitting, or equivalent support, suitable for the size of the valves, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration but in no case greater than 12-inches from the center of the valve. Supports shall be installed so as not to interfere with the free expansion and contraction of the system's piping, fittings, and valves between anchors. All valves and supports shall be designed and installed so they will not be disengaged by movement of the supporting piping.
- 24. **Section 410.1; add a second paragraph and exception to read as follows:

<u>Access to regulators shall comply with the requirements for access to appliances as specified in Section 306.</u>

Exception: A passageway or level service space is not required when the regulator is capable of being serviced and removed through the required attic opening.

25. **Section 614.6; add a sentence to read as follows:

The size of duct shall not be reduced along its developed length nor at the point of termination.

- 26. **Section 621.2; add exception as follows:
 - **621.2 Prohibited use.** One or more unvented room heaters shall not be used as the sole source of comfort heating in a dwelling unit.

Exception: Existing approved unvented heaters may continue to be used in dwelling units, in accordance with the code provisions in effect when installed, when approved by the Code Official unless an unsafe condition is determined to exist as described in Section 108.7.

- 27. **Section 624.1.1; change to read as follows:
 - **624.1.1 Installation requirements.** The requirements for water heaters relative to <u>access</u>, sizing, relief valves, drain pans and scald protection shall be in accordance with the *International Plumbing Code*.

Sec. 22-61 International Energy Conservation Code Adopted.

The International Energy Conservation Code, 2009 Edition as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-62 Amendments to the International Energy Conservation Code.

- 1. Section 101.1; Insert: City of Bedford
- 2. ***Section 101.4.2; change to read as follows:
 - **101.4.2 Historic Buildings.** Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey; certified as a contributing resource with a National Register listed or locally designated historic district; or with an opinion or certification that the property is eligible to be listed on the National or State Registers of

Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer of the Keeper of the National Register of Historic Places, are exempt from shall comply with all of the provisions of this code.

Exception: Whenever a provision or provisions shall invalidate or jeopardize the historical designation or listing, that provision or provisions may be exempted.

- 3. ***Section 103.1.1; add Section 103.1.1 to read as follows:
 - 103.1.1 Alternative compliance. A building certified by a national, state, or local accredited energy efficiency program and determined by the Energy Systems Laboratory to be in compliance with the energy efficiency requirements of this section may, at the option of the Code Official, be considered in compliance. The United States Environmental Protection Agency's Energy Star Program certification of energy code equivalency shall be considered in compliance.
- 4. Section 108.4; Change to read as follows:
 - **108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.
- 5. ***Section 202; add the following definition:
 - **GLAZING AREA.** Total area of the glazed fenestration measured using the rough opening and including sash, curbing or other framing elements that enclose conditioned spabce. Glazing area includes the area

of glazed fenestration assemblies in walls bounding conditioned basements. For doors where the daylight opening area is less that 50 percent of the door area, the glazing area is the daylight opening area. For all other doors, the glazing area is the rough opening area for the door including the door and the frame.

- 6. ***Section 401.2, Item #1; change to read as follows:
 - 1. Sections 402.1 through 402.3, 403.2.1 and 404.1 (prescriptive) <u>and the use of Tables 402.1.1</u> and 402.1.3 are limited to a maximum *glazing area* of 15% window area to floor area ratio; or
 - 2. {language unchanged}
- 7. ***Section 402.2.12; Add Section 402.2.12 to read as follows:

<u>Section 402.2.12 Insulation installed in walls.</u> Insulation batts installed in walls shall be totally surrounded by an enclosure on all sides consisting of framing lumber, gypsum, sheathing, wood structural panel sheathing or other equivalent material approved by the building official.

8. ***Section 405.4.1; add the following sentence to the end of paragraph:

RemRateTM, Energy GaugeTM, and IC3 are deemed acceptable performance simulation programs.

Sec. 22-63 International Property Maintenance Code Adopted.

The International Property Maintenance Code, 2009 Edition as published by the International Code Council, Inc., a copy of which is on file in the office of the City secretary is hereby adopted by reference. Unless deleted, amended, expanded or otherwise changed herein, all provisions of such Code shall be fully applicable and binding; providing for the issuance of permits and the collection of fees thereof.

Sec. 22-64 Amendments to the International Property Maintenance Code.

- 1. Section 101.1; insert "City of Bedford"
- 2. Section 103.5; insert "Appendix A Schedule of fees"
- 3. Section 108.4; Change to read as follows:
 - **108.4: Violation Penalties.** Any person violating or failing to comply with any provision or requirement of this article shall be subject to the penalties provided for in Article I, Chapter 22 of the code of ordinances.
- 4. Section 302.4; insert "ten (10) inches"
- 5. Section 304.3; Change to read as follows:
 - 304.3 Premises identification. Buildings shall have approved address numbers placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 0.5 inch wide, 4 inches high for one and two family dwellings and 8 inches high for commercial and multifamily properties.
- 6. Section 304.14; insert "January 1" and "December 31"
- 7. Section 602.3; insert "January 1" and "December 31"
- 8. Section 602.4; insert "January 1" and "December 31"
- 9. Section 111; Delete and replace entire section with the following:

SECTION 111 MEANS OF APPEAL

- **111.1 Application for appeal**. Any person shall have the right to appeal a decision of the code official to the board of appeals established by ordinance. The board shall be governed by the enabling ordinance.
- SECTION 2. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance, since the same would have been enacted by the City Council without the incorporation in this ordinance of any such unconstitutional phrase, clause, sentence, paragraph or section.
- SECTION 3. This ordinance shall become effective upon passage and publication in accordance with laws of the State of Texas and the Charter of the City of Bedford.
- SECTION 4. That all ordinances or any parts thereof in conflict with the terms of this ordinance shall be and hereby are deemed repealed and of no force or effect; provided, however, that the ordinance or ordinances under which the cases currently filed and pending in the Municipal Court of the City of Bedford, Texas, shall be deemed repealed only when all such cases filed and pending under such ordinance or ordinances have been disposed of by a final conviction or a finding not guilty or nolo contendere, or dismissal.
- SECTION 5. If any section, article, paragraph, sentence, clause, phrase or word in this ordinance, or application thereto, to any person or circumstance, is held invalid or

unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this ordinance; and the City Council hereby declares it would have passed such remaining portions of the ordinance despite such invalidity which remaining portions shall remain in full force and effect.

PRESENTED AND PASSED this 22nd day of March 2011, by a vote of 6 ayes, 0 nays and 0 abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

	Jim Story, Mayor	
ATTEST:		
Michael Wells, City Secretary		
APPROVED AS TO FORM:		
Stan Lowry, City Attorney		